The Management of Allergic Patients

Practical Considerations

RICHARD A. KERN, M.D., Philadelphia

• It is important that physicians know which of their patients have allergic sensitivity, for one patient in seven will at some time have a major allergic disease. New and more serious allergic diseases are appearing, in some cases owing to sensitivity to materials used in treatment. Allergic reaction may give rise to a host of symptoms and in many parts of the body. Sensitivity to one allergen may diminish and reaction to another develop in the same patient; allergic disease may affect one organ at one time, another organ at another time.

The best way to know what patients have allergic sensitivity is to ask them. When patients are questioned, particular attention should be given to eliciting indications of personal or familial hypersensitivity.

Knowing of a patient's allergic background, a physician may be able more readily to diagnose and treat a condition that might otherwise be dismaying. Also he may be alerted as to what not to use—what bandages, sutures, drugs — in treating the patient for any condition.

WHEN A SO-CALLED SPECIALIST addresses an audience of general practitioners, he usually does three things: He tries to convince them of the importance of his specialty, which is excusable. He tries to make specialists of his audience, which is unnecessary. He forgets the broader interests of his audience, which is regrettable, because he misses a golden opportunity to give his hearers something practical to carry home. I need not stress the importance of my field in a state society that is enlightened enough to have a section on allergy. There is no point to making specialists of this group: Why invoke more competition? As for the third count, the writer is an internist with an interest in allergy, who before that was for a number of years a general practitioner, and he hopes he never loses his general viewpoint.

Please note that the title of this article refers to *allergic patients:* It is not meant to be a discussion of allergic diseases.

Do you know who in your practice are your allergic patients? It is important that you should, and for several reasons.

1. *They are numerous:* 15 per cent of them, or 1 in 7, will experience at some time in their lives a major allergic condition, such as asthma, hay fever, eczema or hives. Another 25 per cent will have a less severe, probably more obscure allergic reaction. That covers a big slice of your practice.

2. *They are peculiar people with an inherited defect:* They did not inherit an allergic disease, such as asthma, or sensitivity to an antigen such as ragweed pollen; what they did inherit was the capacity to be sensitized to things more easily than are other persons. They are born that way, they remain so until they die: The defect doesn't change.

3. *But the sensitivity pattern changes:* Old sensitivities to some things may be lost, new sensitivities can develop. Different parts of the body may become new shock organs, while parts once sensitive may lose their reactivity.

4. *The number and potency of allergens is on the increase:* This is unfortunately too true in case of many of our new and most useful remedies.

5. *New and more serious allergic diseases are appearing:* Although the usual allergic reactions are characterized by the completely reversible lesions of edema and smooth muscle spasm, more sinister necrotic irreversible lesions in blood vessel walls, as in periarteritis nodosa, are following the use of foreign sera and various drugs, with increasing frequency and fatal results. The fatal anaphylaxis from horse serum-antitoxin of the past is beginning to be replaced by equally disastrous reactions to penicillin.

Therefore, in a considerable minority of your patients, symptoms of the greatest variety and due to a legion of allergens can exist alone or in combination with almost any of the ills of the flesh, which they may modify, aggravate or minimize in endless variety.

How will you recognize your allergic patient? *Ask him!* If he comes to you because of pruritus ani, a condition due to multiple causes, he won't tell you

From the Department of Medicine, Temple University School of Medicine, Philadelphia.

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he has hay fever, because he sees no connection. Yet if you elicit the story of hay fever, the betting odds for sensitivity to a food as a cause of the pruritus are greatly increased. You always ask your patients if they cough, belch or vomit; why not whether they sneeze, wheeze or itch? You will strike oil more often if you do.

Therefore ask every patient about a personal history of asthma, hay fever, perennial allergic rhinitis, eczema, hives, food and drug sensitivities and headaches. Naturally, you don't ask, "Have you perennial allergic rhinitis?" but rather, "When you sneeze, do you sneeze once or twice, or half-a-dozen times in a row?" A normal person is entitled to two or three consecutive sneezes, but six, routinely, are as sure to be allergic as a frank attack of asthma.

Make the same inquiry about the family, but remember that a man knows little about the family history beyond the fact that his uncle was hung for being a horse thief. It takes the women to remember that a great-aunt got hives from Jerusalem artichoke.

If the family history is positive, the patient could be allergic; if the personal history is positive, he is allergic. Then the inquiry should be extended into full details as to *relations of symptoms* to such things as time of year, day of week, time of day, weather, place, work, avocation, holidays, specific activity, tension, fatigue, particular foods, drinks, drugs, menses, intercurrent illness. Find out what the patient is exposed to in bedding, upholstery, floor coverings, animals living or dead, insecticides, cosmetics, hair dyes, residences (including dates of occupancy, heating devices and mildew in cellars). It must be pointed out that it is in history taking that the allergist shines, because he knows what to ask about and takes the time to do it.

You may now decide either that the patient's present complaint has an allergic slant, or that there is no relation at all. But in any event, be sure to *make a red check-mark before his name* as a reminder for future reference that he is allergic.

Routine physical examination may give the hint of allergic disease by the pale boggy nasal mucosa or the wheezing rales of a patient thought to have only cardiac disease.

Eosinophilia suggests allergy (its absence doesn't rule it out) and is ample reason for routine differential as well as total leukocyte counts.

The results of treatment have diagnostic value. The relief of wheezing rales by epinephrine suggests their allergic nature. The patient whose asthma stops when he is hospitalized, only to recur when he goes home, is sensitive to some inhalant in the home, usually house dust.

Of course, you should know what disease pictures could be allergic. There is time only to mention a few that are often overlooked. A fuller discussion is available elsewhere.[1]

In the ***respiratory tract***, *perennial allergic rhinitis* is commonly missed or badly treated.[2] Most people enjoy their sneezes; our grandparents took snuff to make them sneeze. When such patients do consult a physician because of increasing nasal obstruction, he prescribes nose drops or a shrinking spray, and neglects the allergic aspect. Even when polyps develop, they are repeatedly removed without subsequent search for the allergens causing recurrence. Such rhinitis, easily controlled in its beginnings, all too often leads to more serious and difficult asthma. Evanescent *hoarseness* and paroxysmal unproductive *cough* are similar expressions of chronic allergic disease. *Asthma in young children* is usually attended by fever, leukocytosis and inflamed (not pallid) bronchial mucosa, and severe attacks are called bronchopneumonia before their true nature is recognized.

The ***digestive tract*** offers many instances of allergic symptoms that are quite like those due to other causes. A few of them are cited: Recurrent crops of *aphthous ulcers* in the mouth; a wide range of *gastric episodes*, mild and severe, acute and chronic; a respectable minority of cases of *peptic ulcer* (Kern and Stewart[3]); many cases of diarrhea or constipation that are put in the diagnostic groups of *mucous* and *ulcerative colitis;* at least 20 per cent of cases of *pruritus ani. Cyclic vomiting* in children is often allergic.

In the ***skin***, all kinds of *rashes* can be of allergic origin involving things swallowed or contacted, including the very ointments used to treat them.

Allergic blood dyscrasias may be manifested as *malignant neutropenia* and many cases of *purpura*, both with and without low content of platelets, are of similar origin.

In the ***urinary tract***, such purpuric capillary bleedings can produce *hematuria* and *renal colic*, and these may be *unilateral*, suggesting organic disease. *Pain in the bladder* and *nocturnal enuresis* can arise when the bladder is the shock organ. The kidneys may be the site of *necrotizing vascular lesions* in some cases of allergic purpura, and in drug and serum sensitivity.

In the ***nervous system***, there is nothing about an allergic headache that is different from many other kinds of headache, although a fair proportion of them are in the *migraine* syndrome. The syndrome of *Menière* also includes a fair proportion of allergic nature. A rare instance of *epilepsy* (0.5 per cent of grand mal and a few more of petit mal) can be traced to an allergic cause (a pity there are so few, for in no other types of epilepsy can such complete relief be given).

In the ***cardiovascular system*** the heart is probably not the shock organ, except when coronary arteries share in *periarteritis nodosa.* But *paroxysmal auricular tachycardia* has an allergic component in a quarter of the cases, as does a rare instance of *paroxysmal auricular fibrillation.* That tobacco plays a part in *thromboangiitis obliterans* is undoubted, but that this is on an allergic basis is not proved. The author has expressed himself at length elsewhere[4] on the cardiovascular aspects of allergic states.

The **eye** supplies its quota of allergic manifestations, including many cases of *conjunctivitis, iritis, episcleritis,* and recurrent *corneal ulcer.* Allergic migraine may be associated with impairment of vision, usually evanescent, but sometimes lasting as long as 20 days and therefore suggesting a brain tumor.

The middle **ear** may suffer as a result of *eustachian block* by allergic edema.

How do you proceed with your allergic patient when you suspect an active allergic disease? If his complaint is simple, and the diagnostic possibilities few, as in many cases of hay fever, you make the necessary skin tests and establish a basis for treatment. But if the picture is more complex, and especially if your diagnostic attempts have been foiled, then waste no further time but seek an *allergic survey* by one capable to make it. This doesn't just mean a set of skin tests by some laboratory technician; you wouldn't take a technician's interpretation of an electrocardiogram. The function of the allergist is to determine causes not merely by skin tests, but chiefly by history and observation, in the light of his experience with and knowledge of allergic diseases. In the past, too many physicians thought of skin tests as the "open sesame" in allergic diagnosis, and when they failed to get a complete answer, abandoned them. Skin tests have strict limitations and many blind spots that must be reckoned with; if the reader is interested, he will find them briefly stated in a recent article by the author.[1] Nevertheless, with all their faults, they provide a valuable diagnostic tool in the hands of those experienced in their use and in the interpretation of their results.

It is hardly necessary to remind general practitioners that the *diagnosis must be complete;* the specialist is oftener in need of the warning to consider the whole patient.

The author[4] takes every opportunity to inveigh against a *common current mistake in the diagnosis of asthma.* It is assumed by some that most cases of asthma can be grouped as "extrinsic," that is, due to sensitivity to external causes; or as "intrinsic," nonallergic, due to causes within the patient, notably infection. It is indeed true that in older asthmatic persons, infection is increasingly in the picture, aided and abetted by poorer circulation, lowered resistance and perhaps beginning bronchiectasis. Chronic cough, purulent sputum, at times leukocytosis and mild degrees of fever are much in evidence. A further cause for error is supplied by the lessening reactivity of the skin as people grow older, until negative reactions are obtained to substances which still cause symptoms in the bronchial tree. All of this leads to the serious error of assuming that asthma in the aged is rarely due to allergy, but is usually "intrinsic" and infectious. Indeed Rackemann[6] has claimed that extrinsic asthma rarely begins after the age of 45.

This is grossly in error. An allergic factor, if properly sought for, can be found in the majority of elderly asthmatic persons. Even in those whose asthma begins at 70, the clue to the allergic factor is often supplied by a history of other allergic reactions, especially allergic rhinitis, that go back to early youth. That infection plays a frequent and important role in the asthma of the elderly is not denied, but that it is solely responsible is seriously challenged.

The *role of psychic factors* in conditions commonly considered allergic has been extensively and at times heatedly discussed. The author has time only to give his conclusions: Psychic factors can pull the trigger, but they do not load the gun. He has yet to see an asthmatic in whom no allergic and only psychic factors were present, and, except in rare instances, the allergic factor is preponderant.

Here are some practical points in the management of your allergic patient. The first principle of all allergic practice is that *100 per cent avoidance* of all causative allergens gives *complete clinical relief.* But putting a plastic cover on the pillow or mattress does not effect complete avoidance of the contents. Yet this mistake is being made today, times without number. It is of course absurd to change the pillow on only one of twin beds in the room, or even only on one-half of a double bed. Nor is complete avoidance achieved by the most meticulous attention to the furnishings of the bedroom, if a hot-air heating plant brings in dust from all the rest of the house. Filters in hot-air systems are not wholly efficient. Nor is avoidance of a food achieved if the ingredients of mixtures eaten away from home or in many packaged foods are unknown. Food-sensitive patients must always obey the rule: If you don't know what's in it, don't eat it.

Partial avoidance is of course better than none. Many things that are not wholly avoidable may nonetheless be much reduced in the environment; and this may be enough to achieve comfort, or to make a desensitization program effective.

For, *if symptoms persist in spite of partial avoidance, desensitization must be tried.* This involves

relatively few things: pollens, molds, a few epidermal substances, some occupational dusts and house dust. With these programs most of you are familiar. A few cautions apply: (1) *Make haste slowly;* small doses, gradually increased, spaced 5 to 7 days apart, work best. (2) *Sterilize your syringe and needle by boiling or autoclave:* alcohol can precipitate your antigen and so make it wholly or partly useless, and it doesn't protect against hepatitis. (3) For testing and treatment use an extract of dust from the patient's *own* home, not a stock house dust extract.

Complicating infection calls for surgical drainage where needed (chronic sinusitis), the use of vaccines, in selected instances of chemotherapeutic agents and of climatotherapy. Here, again, some cautions apply: *Use small initial doses of vaccine,* lest an existing bacterial sensitivity lead to severe, even serious reactions. It would be carrying coals to Newcastle to discuss climate here. But one is reminded of Robin Burns's quip that climate brings people to California and weather sends some of them away. Coastal fogs and local smog are unfavorable to most asthmatic persons, especially the elderly.

The matter of the *use of drugs* brings us back to the main point, which is the *allergic patient,* not an allergic disease. No matter why he comes to you, you must think of the *allergic* part of him before launching on any treatment, and some diagnostic procedures. No matter how you treat a sprained ankle, you must reckon with the possibility of skin sensitivity to the adhesive tape, or the more serious sensitivity to the local anesthetic you plan to inject. A surgeon who uses silk sutures in the neck of a silk-sensitive patient with goiter will be picking out silk knots for the next six months. You could cause a serious or fatal reaction to the contrast medium in your search for a lung cancer or a kidney lesion. Therefore you must heed the *red check mark before the patient's name* and follow these rules:

· *Don't give him drugs that can do harm because of his allergic state.* Thus, don't give an asthmatic person, especially if he has fever, any drugs that will cut down an already scant and viscid sputum. That means no *atropine* and no *antihistaminics;* they can precipitate a serious, even fatal, status asthmaticus. Don't give such a patient an *opiate,* lest he die in a matter of minutes of asphyxia. Opiates, unwisely given, are still the commonest cause of death in asthma.

Don't give him a drug to which he is sensitive. Always ask him about allergy, especially about previous treatment with, or reactions to, the drug you have in mind. If he has previously received it, give it cautiously; he might be sensitive. If he has had any previous reaction to the drug, don't give it.

Don't sensitize him unnecessarily. The newer drugs, especially the chemotherapeutic agents, are all potent allergens. Each one, as it appeared, was hailed as low in toxicity and of negligible allergenic significance, only to prove quite the reverse when lapse of time had permitted its second and later courses in patients. Penicillin is no exception: It is now the cause of frequent prolonged reactions of the serum-sickness type, some of which are going on to fatal periarteritis nodosa; most recently, the severe anaphylactic reactions are being encountered, and a score or more of sudden deaths have been reported. Therefore give your allergic patient such drugs only when he really seriously needs them. Don't treat minor ailments with these potent drugs, lest a later grave illness find him deprived of their life-saving help. Don't shoot sparrows with 16-inch guns.

If your allergic patient develops an allergic reaction to a drug, stop giving the drug at once. A tragic error is to fail to realize that many drug reactions are characterized by fever, which is in turn mistaken for a continuation or aggravation of the disease under treatment, calling for further use of the drug, with disastrous results. If the drug reaction persists unduly after the administration is stopped, and especially if there develops a rising eosinophilia, there is the threat of periarteritis nodosa. This calls for the immediate use of cortisone.

This brings the discussion to its final topic: ***the use of corticotropin (ACTH) and cortisone in allergic patients.*** The following facts have been established as to the effects of these substances:

They are palliative, not curative, in allergic states. Although symptoms are held in abeyance, and even skin reactivity to allergens may be lessened and occasionally set aside, there is no diminution or change in the underlying sensitivity, and all manifestations recur upon sufficient reexposure to the cause.

They mask infection without affecting the infective agent. As Salter put it, they prove it takes two to make a quarrel: The body stops reacting with fever and symptoms, but the infection continues and can kill the non-belligerent patient.

Prolonged administration of corticotropin is followed by hypoplasia of the pituitary gland and hypertrophy of the adrenal glands; when treatment is stopped, the pituitary regains some, but not all of its loss after months, while the adrenal glands shrink to less than their former size. *Prolonged administration of cortisone* results in some pituitary hypoplasia and sharp reduction in size of the adrenal glands, and neither the enlargement nor the shrinkage is completely reversed for months. Patients after two years on cortisone are said to have died quickly from acute infections, with extreme adrenal atrophy observed at necropsy. Prolonged administration of either drug leaves the patient worse off than when he started. Remember this, above all, in children.

Corticotropin is a "good" allergen and has sensitized asthmatic persons so that reactions followed reinjection. Cortisone is a relatively "poor" allergen and only few cases of sensitivity have resulted.

The usual *untoward side effects* of both drugs are more pronounced in older patients.

Unexplained convulsive seizures, some with fatal outcome, have developed in asthmatic persons given cortisone for long periods.

The safe indications for short term (7 to 10 day) use of these substances therefore include *acute severe allergic reactions due to known and avoidable causes:* severe drug reactions; contact dermatitis, especially if severe and exfoliating; serious ivy poisoning; severe serum sickness; trichinosis; severe Loeffler's syndrome. In any of these conditions they may be life-saving. In the severest, corticotropin is given by intravenous drip. In the others, cortisone is used: 300 mg. the first day, dropping by 100 mg. daily to 100 mg. a day for a week, then tapering off by reductions of 25 mg. daily.

Additional short-term uses are: to prepare an asthmatic person for an emergency operation, to prepare a patient sensitive to Lipiodol® for a needed bronchogram, and to treat a patient in status asthmaticus, but only when all other means have failed.

Long-term therapy is justified in *allergic conditions of unknown cause that threaten life,* such as periarteritis nodosa and some severe purpuras; also in chronic beryllosis that threatens life.

Hundreds of papers have been written on such therapy in *asthma*—many of them by persons who had the drugs and some patients, but not much experience with asthma. They rushed into print with glowing reports little more justified than if someone had relieved a few asthmatic seizures with epinephrine. There is no curative effect from the treatment. It could be justified only as a short-term measure in severe cases before other therapy has had a chance to take effect, and as a long-term measure in cases in which all other treatment has failed. Yet all too often these legitimate indications are offered to cover up a short-cut around proper diagnosis and curative treatment, which are thereby improperly delayed. It is as yet impossible to pass final judgment on such cases, but the ill effects are becoming increasingly evident. Let there be none on your consciences.

3401 North Broad Street.

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Health Insurance Is *Good* Medicine

EACH MEMBER OF THE California Medical Association recently received six copies of a new pamphlet titled "Health Insurance Is *Good* Medicine." Designed to help the public understand health insurance better, the pamphlet defines health insurance, reviews various plans and offers guideposts for the public's protection. Each member was asked to make this pamphlet available to his patients through his office.

The pamphlet was prepared by the C.M.A.'s Medical Services Commission and Public Relations Department.

Comments will be welcomed.

Medical Services Commission